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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,862	07/08/2002	Dietmar Wolter	H01.2-10378	2627
490	7590	08/23/2005	EXAMINER	
VIDAS, ARRETT & STEINKRAUS, P.A. 6109 BLUE CIRCLE DRIVE SUITE 2000 MINNETONKA, MN 55343-9185			NGUYEN, TUAN VAN	
			ART UNIT	PAPER NUMBER
			3731	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/070,862	Applicant(s) WOLTER ET AL.	
	Examiner Tuan V. Nguyen	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07/08/02</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Applicant response to Election/Restriction Requirement was received on August 02, 2005. Here it is noted that the applicant has elected Fig. 1, claims 1-5 and 8-14 without traverse. Claims 6 and 7 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

2. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence(s) of the specification or in an application data sheet by identifying the prior application by application number (37 CFR 1.78(a)(2) and (a)(5)). If the prior application is a non-provisional application, the specific reference must also include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

Drawing

3. The drawings are objected to because: see Notice of Draftsperson's Patent Drawing Review (Form PTO-948). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of

the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 1 is objected to because: claim 1 recites "force carrier", there is insufficient antecedent basis for this limitation in the claim. Here it is noted that the applicant intended to recite "bone plate" (see specification, page 6, line 21). Appropriate correction is required.
5. Claim 1 is objected to because: claim 1 recites "at least the two adjacent holes (2,3,4) which are disposed on different sides of a portion of the force carrier (19)

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which is associable with zone of fracture or instability of a bone are obliquely inclined towards each other with the axes of the two holes (2,3,4) diverge on the side of the force carrier (1) which is to face the bone" is unclear. Appropriate correction is required.

6. Claims 2-5 and 8-14 are objected to as depending on claim 1 and are similarly indefinite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huebner (U.S. 6,001,099) and further in view of Treace (U.S. 3,463,148).

10. Referring to claim 1, Huebner discloses (see Figs. 1, 3, and 4) a bone plate having holes 20c, 20b, and 20a disposed on one side of the fracture and another set of holes 20c, 20b, and 20a disposed on the other side of the fracture, the bone plate also has reinforcement disposed radially and longitudinally around the holes 20b and 20a, holes 20c, 20b, and 20a are adapted to receive fasteners. However, Huebner fails to disclose the axes of the holes on both sides of the fracture are obliquely inclined toward each other.
11. Still referring to claim 1, Treace discloses (see Figs. 3-5) a bone plate with holes are adapted to receive fastener wherein the holes axes are disposed obliquely inclined toward each other.
12. Still referring to claim 1, it would have been obvious to one of ordinary skill in the art at the time the invention was made by the applicant to use the hole design, as disclosed by Treace, to incorporate into the bone plate, as disclosed by Huebner because this will allow the surgeon to deploy the fasteners at different angle relative to the bone plate surface to provide a better distribution of force to the bone because the bone is not always subjected to compression, tension forces it also subjected to torsional forces.
13. Referring to claim 2, Huebner discloses (see Figs. 2 and 4) the bone plate having varying rigidity that gradually transfers load from the bone to the bone plate without excessively weakening the bone near the ends of the bone plate (see col 1, lines 51-54) therefore the width W1 between holes 20a and 20b is smaller than the width W2 between holes 20b and 20c and the distance S1 between the holes

20a and 20b is longer than the distance S2 between holes 20b and 20c. This is meant that the bridge 26 and the area around holes 20c has larger cross-section area than any other locations therefore has more strength than any other locations.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huebner (U.S. 6,001,099) in view of Treace (U.S. 3,463,148) and further in view of Pawluk (U.S. 4,955,886).
15. Still referring to claim 3, Huebner discloses (see Figs. 1, 3, and 4) a bone plate having holes with reinforcements. However, Huebner fails to disclose reinforcing the bone plate at the desired location by thickening the thickness of the bone plate.
16. Still referring to claim 3, Pawluk discloses (see Figs. 3 and 4) a bone plate having a dual-tapered width and thickness profile for varying plate cross section along the longitudinal axis away from the central portion.
17. Still referring to claim 3, it would have been obvious to one of ordinary skill in the art at the time the invention was made by the applicant to use the tapering of the thickness design, as disclosed by Pawluk, to incorporate into the bone plate, as disclosed by Treace and then incorporate into the bone plate as disclosed by Huebner because this will allow the surgeon to use the bone plate on bones that have small diameter.
18. Referring to claims 4, 5, and 8-14, they are rejected for the same reasons as claim 1 is combined with claims 2 and 3.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No 4,219,015 to Steinemann.

U.S. Pat. No 4,683,878 to Carter.

U.S. Pat. No. 5,785,713 to Jobe.

U.S. Pat. No. 6,454,769 to Wagner et al.

U.S. Pat. No U.S. 5,681,311 to Foley et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Nguyen whose telephone number is 571-272-5962. The examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AnhTuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Tuan V. Nguyen
August 10, 2005




ANH TUAN T. NGUYEN
SUPERVISORY PATENT EXAMINER

8/19/05